

4.17 TRANSPORTATION

This section describes existing road traffic levels, train and bus services, bike routes, and parking availability in the proposed Project area. Marine traffic is discussed in Section 4.3, "Marine Traffic." This section also addresses comments received during public scoping in March 2004 and during the public review period for the October 2004 Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) and the March 2006 Revised Draft EIR. Comments included concern over Project effects on the local transportation systems; parking impacts; length of time of potential traffic disruptions; impact classifications for traffic lane closure during construction; air traffic impacts near the Point Mugu Shore Crossing Alternative; impacts from heavy construction vehicles; and clarification of permits required by Ventura County and the California Department of Transportation (CalTrans). Potential impacts are identified in this section, and mitigation is proposed for significant impacts. Additionally, the effects of alternatives on local transportation are evaluated relative to the proposed Project.

4.17.1 Environmental Setting

The environmental setting discussion regarding onshore traffic and transportation for the Project is divided into three parts: the Reliant Energy Ormond Beach Generating Station shore crossing, the Center Road Pipeline, and the Line 225 Pipeline Loop. The shore crossing location and onshore pipeline routes are shown in Figures 2.4-1 (Center Road Pipeline) and 2.4-2 (Line 225 Pipeline Loop). Southern California Gas Company (SoCalGas) would install the proposed onshore pipelines and expand any needed existing Project-related facilities, pursuant to a contract with the Applicant, should the Project receive all its necessary permits and approvals. SoCalGas has franchise agreements with Ventura County and the Cities of Oxnard and Santa Clarita, which allow the laying and use of natural gas pipelines under, across, or upon public streets, and is responsible for repairing any damage to streets. This is discussed in more detail in Section 4.13.2.1, "Regulations, Plans, and Policies."

High pressure natural gas transmission and low pressure distribution pipelines are currently routed through or near residential and industrial areas in most communities, including Oxnard and Santa Clarita. Natural gas pipelines are subject to safety requirements imposed by both Federal and State agencies. These requirements are discussed in detail in Section 4.2.9.2 "Regulations Regarding Pipelines." Natural gas transmission lines located in more densely populated and industrial areas are subject to increased safety requirements, compared to pipelines in more rural areas.

4.17.1.1 Reliant Energy Ormond Beach Generating Station Shore Crossing

The proposed shore crossing does not cross roads, bus routes, or bike routes and would not directly affect any existing fire stations, hospitals, or schools. Project construction activities that may affect transportation in this area would be related to movement of equipment to the site.

Roads and Traffic Volumes

Roads in the vicinity of the shore are used for recreational access to Ormond Beach and industrial access to the generating station. Access to the proposed shore crossing location would be gained by traveling from U.S. 101 (Ventura Freeway) to State Route (SR) 232 (East Vineyard Avenue) to Port Hueneme Road to Edison Drive. Traffic volumes for these roads are presented in Table 4.17-1. Edison Drive is a small collector road, where traffic volumes are not recorded.

Table 4.17-1 Roadways Used to Access Ormond Beach Shore Crossing Location and Traffic Volumes

Route/Road	Direction	AADT (# of vehicles)	Peak Hour (# of vehicles)
U.S. 101 (Ventura Freeway) junction with SR 232 (East Vineyard Avenue)	Southbound	125,000	9,600
	Northbound	139,000	10,700
SR 232 (East Vineyard Avenue) junction with U.S. 101 (Ventura Freeway)	Eastbound	53,000	4,700
	Westbound	31,500	2,950
Port Hueneme Road east of Las Posas Road		8,100	930

Sources: California Department of Transportation 2006; Ventura County Public Works Agency 2006.

Notes: AADT = annual average daily traffic; all data for 2005.

Airport Runways

Navy aircraft fly from two runways at the Naval Base Ventura County (NBVC) on the coast just southeast of the City of Oxnard, the proposed Ormond Beach Metering Station, and the proposed Center Road Pipeline. The southwestern end of the main runway, which is oriented northeast to southwest, is approximately 0.2 mile (0.3 kilometer [km]) from the shoreline. NBVC covers 4,500 acres (1,821 hectares [ha]), and the proposed Center Road pipeline route would be approximately 1.1 miles (1.8 km) from the northernmost boundary of the Base at its nearest point (the intersection of East Hueneme Road and Nauman Road). The Ormond Beach Metering Station would be located approximately 0.7 mile (1.1 km) northwest of westernmost boundary of the Base and entirely within the Reliant Energy Ormond Beach Generating Station.

4.17.1.2 Center Road Pipeline

Roads and Traffic Volumes

Major roadways along the proposed Center Road Pipeline route in Oxnard include East Hueneme Road, SR 1 (Pacific Coast Highway), East Pleasant Valley Road, SR 34 (East 5th Street), U.S. 101 (Ventura Freeway), Central Avenue, Santa Clara Avenue, and SR 118 (Los Angeles Avenue). Major road intersections along the proposed Center Road Pipeline are illustrated in Figure 4.17-1. Available traffic data for roadways that cross or share rights-of-way (ROWs) with the proposed Center Road Pipeline are listed in Table 4.17-2.

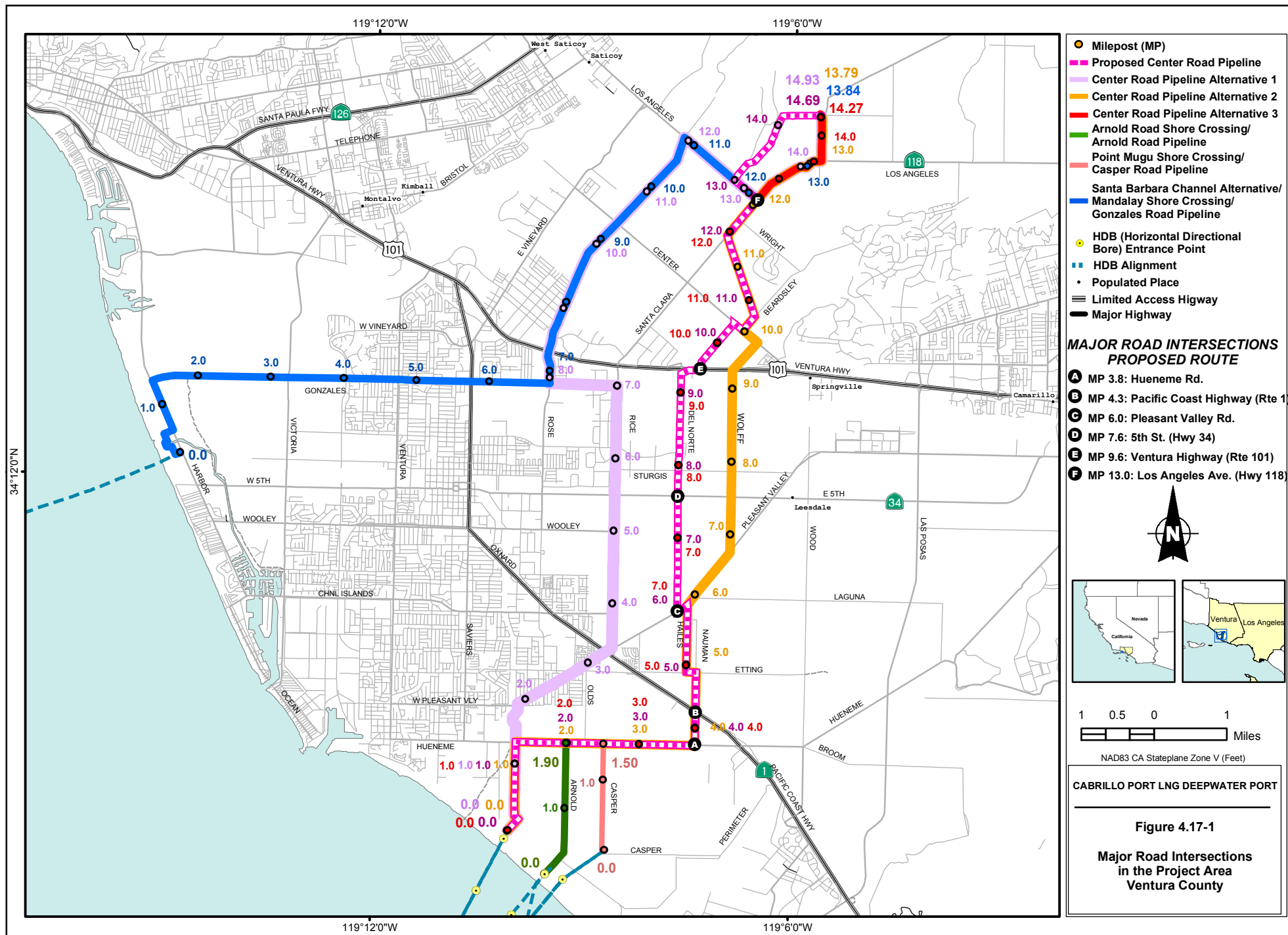


Table 4.17-2 Traffic Data for Roadways that Cross or Parallel the Proposed Center Road Pipeline Route

Mileposts	Roadway/Highway	Description	Location	2003 AADT (number of vehicles)	2005 AADT (number of vehicles)	2005 Peak Hour ^a (number of vehicles)	2005 AM Peak ^b (number of vehicles)	2005 PM Peak ^b (number of vehicles)
0.3 to 1.3	Edison Drive	Two-lane collector	South of Port Hueneme Road	---	---	---	---	---
1.31 to 3.8	Port Hueneme Road	Four-lane arterial	East of Nauman Road	13,200	13,200	---	1,120	1,310
3.81 to 4.8	Nauman Road	Four-lane arterial	NA	---	---	---	---	---
4.3	SR 1 (Pacific Coast Highway)	Four-lane arterial	North of Port Hueneme Road	11,700	12,900	1,550	---	---
			South of Port Hueneme Road	12,500	13,100	1,600	---	---
4.81 to 4.9	Etting Road	Four-lane arterial	East of SR 1 (Pacific Coast Highway)	1,800	1,900	---	380	240
4.91 to 5.8	Hailes Road	Four-lane arterial	NA	---	---	---	---	---
5.81 to 6.0	Pleasant Valley Road	Four-lane arterial	South of SR 34		14,200	---	1,250	1,390
7.51 to 9.3	Del Norte Boulevard	Four-lane arterial	NA	---	---	---	---	---
7.5	SR 34 (East 5 th Street)	Four-lane arterial	East of Rice Avenue	15,000	13,800	1,700	---	---
			East of Pleasant Valley Road	15,000	13,800	1,700	---	---
8.4	U.S. 101 (Ventura Freeway)	Four-lane freeway	West of Almond Drive	138,000	142,000	10,900	---	---
			East of Almond Drive	133,000	137,000	10,500	---	---
10.5	Beardsley Road	Two-lane collector	North of Central Avenue	2,300	2,200	---	170	190
11.8 to 13.5	SR 118 (Los Angeles Avenue)	Four-lane major arterial	Santa Clara Avenue	14,700 westbound 21,700 eastbound	16,000 westbound 23,800 eastbound	1,550 westbound 2,250 eastbound	910	840
14.4 to 14.7	Center Road	Two-lane collector	North of SR 118 (Los Angeles Avenue)	---	---	---	---	---

Sources: Ventura County Public Works Agency 2006; California Department of Transportation 2006.

Notes: AADT = annual average daily traffic; --- = no data available.

^aPeak-hour data from CalTrans 2006. ^bAM and PM peak data from Ventura County Public Works Agency 2006.

1 Levels of Service

2 Level of service (LOS) is a qualitative evaluation of traffic flow conditions. Conditions
3 are divided into six levels ranging from "ideal" to "breakdown." Level of service
4 designations are defined by CalTrans as follows:

Level A: Free flow, low volumes and densities, high speeds; drivers can maintain their desired speeds with little or no delay and are unaffected by other vehicles.

Level B: Reasonably free flow, operating speeds beginning to be restricted somewhat by traffic conditions; drivers still have reasonable freedom to select their speeds.

Level C: Speeds remain near free flow speed, but freedom to maneuver is noticeably restricted.

Level D: Speed begins to decline with increasing volume; freedom to maneuver is extremely limited and level of comfort afforded the driver is poor.

Level E: Unstable flow, with volume at or near capacity; freedom to maneuver is extremely limited and level of comfort afforded the driver is poor.

Level F: Breakdown in flow. Both speeds and volume can drop to zero.

5 Ventura County has identified existing levels of service for some of the intersections
6 crossed by the proposed route. Typically, the most congested time of the day is during
7 the afternoon peak. Table 4.17-3 presents existing levels of service for intersections
8 pertinent to the proposed route based on the most recent and best available
9 information.¹

Table 4.17-3 Ventura County Roads Existing Level of Service

Intersection	Count Date	AM Peak LOS	PM Peak LOS
Hueneme Road/SR 1 (Pacific Coast Highway) Northbound	9/2005	A	A
Hueneme Road/SR 1 (Pacific Coast Highway) Southbound	9/2005	A	A
Pleasant Valley Road/SR 34 (East 5 th Street)	9/2005	A	B
Rice Avenue/Channel Islands Boulevard	9/2005	A	A
Santa Clara Ave/SR 118 (Los Angeles Avenue)	9/2005	A	A

Source: Ventura County Public Works Agency 2006.

Note: LOS = level of service.

¹ The intersection of Santa Clara Ave and SR 118 (Los Angeles Avenue) was reported at LOS D and E in the October 2004 Draft EIR/EIS and the March 2006 Revised Draft EIR. Traffic conditions at the intersection improved sometime between the 2003 and 2005 counts due to the addition of northbound and southbound lanes and signal timing changes (Denton 2006).

Sensitive Facilities

Access must be available at all times to sensitive facilities, which include schools, hospitals, fire stations and police stations. There are no schools, hospitals, fire stations, or police stations along the proposed Center Road Pipeline route. Based on concerns raised during the public comment period on the October 2004 Draft EIS/EIR, the northern portion of the Center Road Pipeline route has been realigned to bypass the Mesa Union School on Mesa School Road. Now, the school closest to the Center Road Pipeline is Tierra Vista School located on Sanford Road approximately 0.55 mile (0.9 km) north of the proposed route near milepost (MP) 2.0. The closest fire station is Station No. 2 located on East Pleasant Valley Road approximately 0.6 mile (1 km) northwest of the proposed route at MP 0.23. Saint John's Regional Medical Center is approximately 1.6 miles (2.6 km) west of the proposed route at MP 8.8. Construction would not affect access to these facilities. Impacts on businesses are addressed in Section 4.13, "Land Use."

Parking

The proposed Center Road Pipeline route passes primarily through agricultural areas, except for a 1-mile (1.6 km) stretch on Del Norte Boulevard immediately north of SR 34 (East 5th Street) that is occupied by commercial and light industrial facilities. Public parking facilities along the proposed route are limited.

Transit Service and Railways

The South Coast Area Transit Bus Service (SCAT) operates transit services within the City of Oxnard and western Ventura County. SCAT's fixed route bus lines do not operate on roadways along the Project route.

The Southern Pacific Railroad runs parallel to SR 34 (East 5th Street) to its north side. The proposed Center Road Pipeline route crosses the railroad at the intersection of SR 34 (East 5th Street) and Del Norte Boulevard. Amtrak operates two passenger service routes on this rail line: the Coast Starlight and the Pacific Surfliner. The Coast Starlight runs two times daily (one northbound and one southbound) between Seattle, Washington, and Los Angeles, California. The Pacific Surfliner runs 12 times daily through the Oxnard Station (six northbound, six southbound) between San Luis Obispo and San Diego, California.

Airports

Two commercial airports are located near the proposed Project: Oxnard Airport is approximately 4 miles (6.5 km) west of the proposed Center Road Pipeline route, and Camarillo Airport is approximately 1.1 miles (1.75 km) east of the proposed route.

Bike Routes

A review of the Ventura County General Plan Circulation Element indicates that the proposed route does not cross or follow any designated bicycle trails.

4.17.1.3 Line 225 Pipeline Loop

Roads and Traffic Volumes

Major roadways along the Line 225 Loop Pipeline route in Santa Clarita include Via Princessa, SR 126 (San Fernando Road and Magic Mountain Parkway), Valencia Boulevard, and McBean Parkway. Interstate 5 (Golden State Freeway) is approximately 0.2 mile (0.3 km) west of the proposed and alternate routes near the northern end of the routes. Major road intersections along the Line 225 Loop Pipeline are illustrated in Figure 4.17-2. Roadways that would cross or share a ROW with the proposed Line 225 Pipeline Loop are listed in Table 4.17-4.

In 2005, average daily traffic, i.e., number of vehicles, at locations near the proposed Project area on Interstate 5 (Golden State Freeway), the most heavily traveled highway in the Project area, was:

- At Lyons Avenue: 195,000 northbound and 185,000 southbound;
- At Valencia Boulevard: 176,000 northbound and 152,000 southbound;
- At SR 126 (Magic Mountain Parkway): 152,000 northbound and 128,000 southbound; and
- At SR 126 (Santa Paula Freeway): 119,000 northbound and 103,000 southbound.

Sensitive Facilities

With respect to construction in roadways, sensitive facilities include schools, hospitals, fire stations, and police stations as access must be available at all times. There are no schools or hospitals along the proposed Line 225 Loop Pipeline route. The school closest to the proposed Line 225 Pipeline Loop is Golden Valley High School located slightly more than 0.25 mile (0.4 km) northeast of Golden Valley Road. The closest hospital is Henry Mayo Newhall Memorial Hospital located on McBean Parkway approximately 0.8 mile (1.3 km) west of the proposed route near MP 2.6. There is a fire station on Citrus Street and a Sheriff's office on SR 126 (Magic Mountain Parkway) near MP 4.1. Impacts on businesses are addressed in Section 4.13, "Land Use."

Parking

On-street parking within the Circle J Ranch development area and public parking lots are available within commercial districts along SR 126 (San Fernando Road and Magic Mountain Parkway). There are no designated park and ride lots located along the proposed Line 225 Pipeline Loop route.

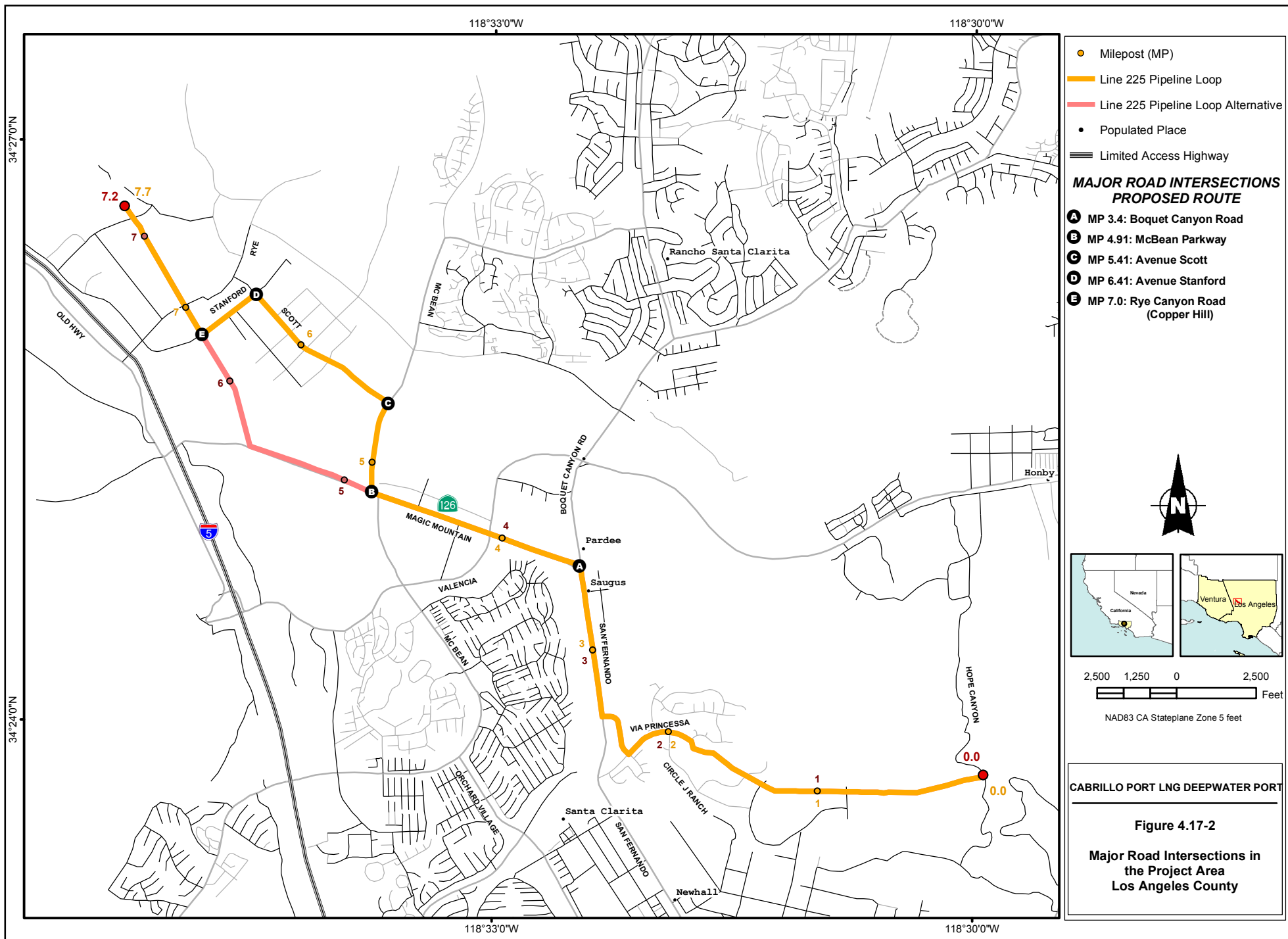


Table 4.17-4 Traffic Data for Roadways that Cross or Parallel the Line 225 Pipeline Loop Proposed Route

Mileposts	Road	Description	Location	Average Daily Traffic in Number of Vehicles (Year of Data)
1.8 to 2.3	Via Princessa	Two-lane collector	West of Oak Ridge Drive	2,900 (2000)
			East of Oak Ridge Drive	1,950 (2000)
2.31 to 2.6	Oak Ridge Drive	Two-lane collector	East of SR 126 (San Fernando Road)	7,450 (2000)
2.61 to 3.4	Bouquet Canyon Road	Four-lane arterial	North of SR 126 (Magic Mountain Parkway)	40,650 (2004)
			South of SR 126 (Magic Mountain Parkway)	41,483 (2003)
3.41 to 4.9	SR 126 (Magic Mountain Parkway)	Four- to six-lane arterial	West of Valencia Boulevard	15,500 (2004)
			East of Valencia Boulevard	15,500 (2004)
			West of McBean Parkway	27,000 (2000)
			East of McBean Parkway	28,650 (2000)
4.91 to 5.4	McBean Parkway	Four-lane arterial	East of Creekside Road	64,600 (2004)
			West of Newhall Ranch Road	39,300 (2000)
5.41 to 6.4	Avenue Scott	Four-lane arterial	South of Avenue Stanford	15,000 (2004)
			South of Rye Canyon Road	17,750 (2000)
6.41 to 6.7	Avenue Stanford	Four-lane arterial	South of Rye Canyon Road	12,000 (2004)
7.0	Rye Canyon Road (Copper Hill)	Four-lane arterial	West of Newhall Ranch Road	18,150 (2000)
			West of Avenue Scott	41,300 (2005)

Source: City of Santa Clarita Traffic Engineering Division 2006.

1 **Transit Service and Railways**

2 Santa Clarita Transit services the City of Santa Clarita. Nearly all of Santa Clarita
3 Transit's routes (10 out of 11) travel on SR 126 (San Fernando Road and Magic
4 Mountain Parkway) as part of their fixed routes. The Line 225 Pipeline Loop would be
5 located in the SR 126 (San Fernando Road and Magic Mountain Parkway) ROW
6 between MP 3.4 and MP 4.75. The transfer station nearest to the Loop route is on
7 McBean Parkway approximately 0.25 miles (0.4 km) south of SR 126 (Magic Mountain
8 Parkway).

9 The Line 225 Pipeline Loop crosses the Union Pacific Railroad between Oak Ridge
10 Drive and Magic Mountain Parkway. The exact point of the railroad crossing is
11 unknown at this time but would be determined during the final design if the application is
12 approved. On these tracks, the Union Pacific Railroad operates freight service, and the
13 Southern California Regional Rail Authority operates the Metrolink's Antelope Valley
14 Line, which provides service between Lancaster and Los Angeles, with stops in
15 between (Southern California Regional Rail Authority 2003). The nearest rail station to
16 the Line 225 Pipeline Loop route is the Santa Clarita Station located off of Soledad
17 Canyon Road, approximately 0.7 miles (1.1 km) northeast of MP 3.3.

18 **Bike Routes**

19 The City of Santa Clarita General Plan Circulation Element classifies bicycle trails as
20 follows:

Class 1: Bike Path Provides a completely separated ROW for the exclusive use of
bicycles and pedestrians with cross-flow traffic minimized. The
trails are marked and landscaped. Fencing encourages the use
of designated access points.

Class 2: Bike Lane Provides a striped lane for one-way bike travel on a street or
highway. Bike lanes are marked with signs and pavement
striping.

Class 3: Bike Route Provides for shared use with pedestrian or motor vehicle traffic.
Bike routes are marked with signs.

Multi-use Trail Located primarily in rural areas, these trails are unpaved and
are available for equestrian, hiking, and mountain bike use.
Trails are marked with lodgepole fencing.

21 The Line 225 Pipeline Loop route crosses and parallels Class 1 bike paths near and
22 along the intersection of Via Princessa and Oak Ridge Drive (MP 2.2) and along Via
23 Princessa (MP 2.0 to 2.3). The Loop route also crosses a bike path and is located near
24 a designated multi-use trailhead, South Fork Trailhead, on the west bank of the South
25 Fork Santa Clara River, along SR 126 (San Fernando Road) (MP 3.5).

1 4.17.2 Regulatory Setting

2 Major Federal, State, and local laws and regulations related to transportation are
3 identified in Table 4.17-5.

Table 4.17-5 Major Laws, Regulatory Requirements, and Plans for Transportation

Law/Regulation/Plan/ Agency	Key Elements and Thresholds; Applicable Permits
Federal	
U.S. Department of Transportation (USDOT)	<ul style="list-style-type: none"> • USDOT has jurisdiction over Federal highways. • Road encroachment permits required for work performed within Federal ROWs. • Regulates transportation of hazardous materials per Title 49 Code of Federal Regulations, Volume 4, Part 397.
State	
California Department of Transportation (CalTrans)	<ul style="list-style-type: none"> • CalTrans has jurisdiction over State highways. • Maximum load limits set for trucks and safety requirements set for oversized vehicles that operate on highways. • Road encroachment permits required for work performed within State ROWs. • Transportation permit required for oversized vehicle use. • Large vehicles limited to off-peak commute periods.
Local	
Oxnard General Plan/Oxnard Public Works Department, Transportation Planning and Construction Services - Streets	<ul style="list-style-type: none"> • The City of Oxnard transportation policies and standards for roadways are discussed in the Circulation Element of the Oxnard General Plan. • Road encroachment permits are required for work in the public road ROW. Permit requirements could include stringent liquidated damages clauses to ensure that the construction contractor abides by the specifications in the permit and restores the roadway.^a
Santa Clarita General Plan/Santa Clarita Public Works Department, Traffic Engineering Division	<ul style="list-style-type: none"> • The City Of Santa Clarita transportation policies and standards for roadways are discussed in the Circulation Element of the Santa Clarita General Plan, which focuses on levels of service, regional transportation, and public transportation planning. • Road encroachment permits are required for work in the public road ROW. Permit requirements could include stringent liquidated damages clauses to ensure that the construction contractor abides by the specifications in the permit and restores the roadway.^a • Circulation Element goal includes insurance of an adequate supply of off-street private and public parking to meet the needs of local residents and visitors to the city.
Ventura County General Plan/Ventura County Public Works Agency Transportation Department	<ul style="list-style-type: none"> • Transportation policies and standards for roadways are discussed in the Circulation Element of the Ventura County General Plan and the Ventura County Initial Study Assessment Guidelines (Ventura County 2000). • Road encroachment permits are required for work in the public road ROW. Permit requirements could include stringent liquidated damages; Ventura County requires that the Applicant pay a deposit in an amount based on the value of the work to ensure that

Table 4.17-5 Major Laws, Regulatory Requirements, and Plans for Transportation

Law/Regulation/Plan/Agency	Key Elements and Thresholds; Applicable Permits
	<p>the construction contractor abides by the specifications in the permit and restores the roadway.^a</p> <ul style="list-style-type: none"> • Traffic impact mitigation fees may be required. • Construction within the Ventura County ROWs must conform to County road standards. In addition, the installation of pipe, trenching, and backfill within the Ventura County ROWs must be in accordance with Section 306 of the "Greenbook" Standard Specifications for Public Works Construction. • Projects that generate additional vehicle trips during construction or operation are evaluated for impacts on off-street parking. During construction, if there is insufficient parking on site to accommodate construction vehicles, impact significance is determined in a case-by-case basis. During operation, if the parking does not meet County zoning ordinance criteria, impact significance is determined on a case-by-case basis.

Note:

^aLiquidated damages are an amount of money specified in a contract that would be awarded in the event that an agreement contained in the contract was violated.

1 4.17.3 Significance Criteria

2 The Cities of Oxnard and Santa Clarita have no established threshold criteria for
3 temporary impacts on traffic and transportation (City of Oxnard 2004, City of Santa
4 Clarita 2004). Ventura County has established threshold levels of significance for
5 impacts on traffic and transportation; these criteria are included in the significance
6 criteria listed below.

7 Traffic impacts are considered significant if the Project construction or operation results
8 in any of the following adverse effects.

- 9 • Contributes to traffic on an access road that is already at or exceeds Level of
10 Service (LOS) E, or brings a roadway down to LOS E. In Ventura County, traffic
11 impacts are considered significant if the following conditions are met:
- 12 (1) if the Project would add 10 or more peak-hour trips to a road segment that is
13 currently operating at an acceptable level of service, but would cause the
14 level of service to fall to an unacceptable level. Acceptable levels are:
- 15 – D for County thoroughfares and State routes in unincorporated areas;
- 16 – C for County-maintained local roads; and
- 17 – varying thresholds for other roads within the County;

- (2) if the Project would add one or more peak-hour trips to a roadway segment that is currently operating at a less than acceptable level of service; or
- (3) if the Project would add 10 or more average daily traffic or 1 percent or more of the total projected average daily traffic to a roadway that is currently operating at a less than acceptable level of service;
- Creates substantial safety hazards to motorists, bicyclists, or pedestrians;
 - Restricts one or more lanes of a primary or secondary arterial during peak-hour traffic, thereby reducing its capacity and creating congestion, or causes the closure of an arterial or collector roadway for more than 48 consecutive hours; or
 - Noticeably deteriorates roadway surfaces due to restoration of road surface inconsistent with local requirements.

The following significance criteria are not applicable to the Project and are not analyzed further:

- The Project would not contribute to traffic on an access road that is already at or exceeds LOS E. None of the intersections potentially affected by Project construction are at LOS E; all are at LOS A or B. (Traffic conditions at the intersection of Santa Clara Ave and SR 118, which was reported at LOS D and E in the October 2004 Draft EIR/EIS and the March 2006 Revised Draft EIR, improved due to the addition of northbound and southbound lanes and signal timing changes [Denton 2006]);
- The Project would not create substantial safety hazards to rail operations. Rail operations would not be interrupted during Project construction or operation, and all pipeline railroad crossings would be installed via horizontal directional drilling (HDD) (as opposed to horizontal directional boring [HDB], which is proposed at the shore crossing) to avoid impacts on rail service;²
- The Project would not permanently reduce the supply of available parking. The Applicant would provide off-street parking on SoCalGas property for the FSRU crew;
- The Project would not disrupt access to or from adjacent land uses, such as residences and businesses, for more than 14 days. There are no schools or hospitals directly on the proposed pipeline route of either the Center Road or Line 225 Loop. As discussed in Chapter 2, "Project Description," metal plates would be placed over open trenches at the edge of the construction work area adjacent to residences and businesses, and at intersections to allow access to adjacent land uses;

² HDD and HDB employ similar technology in that both require the use of drilling mud as a lubricant for the drill head and to stabilize the drilled hole; however, HDB has a pump that returns excess drilling mud and cutting spoils to the drill rig for reuse and the HDD does not.

- The Project would not prevent movement of emergency vehicles because two-way traffic would be maintained on all roadways throughout construction, even if one lane were closed;
- The Project would not conflict with planned transportation projects or adopted public transportation policies. No roads would require improvement to allow equipment to access the Project. If necessary, bus stops would be temporarily relocated until the construction spread passes to avoid interruption of bus service; and
- The Project would not adversely affect air traffic operations. Commercial air traffic at the Oxnard and Camarillo Airports is too far away from the Center Road Pipeline route to be affected by construction or operation of a buried pipeline, and offshore air traffic is high altitude and would not be affected by the installation or operation of the FSRU. Also, construction and operation of the proposed pipeline would not impact the NBVC, as the route lies at least a mile to the west and north of the station. The metering station would be entirely within the property of the Reliant Energy Ormond Beach Generating Station and would have no effect on air operations, which must already avoid tall structures at the power plant. Construction of the alternative shore crossing near NBVC via HDB would not impact naval air operations because the HDB drill rig would be installed in a pit; therefore, all but a few feet would be below ground.

4.17.4 Impact Analysis and Mitigation

As proposed, Project construction would begin in 2009, and total construction time would be approximately nine months (eight months for pipeline installation and one month for hydrostatic testing). Table 4.17-6 details the anticipated construction periods along 1-mile segments of the onshore proposed and alternative pipeline routes, as well as dominant land uses within 500 feet (152 m), and potential roadway/railway crossings.

Table 4.17-6 Anticipated Construction Periods Along 1-Mile Segments of the Onshore Proposed and Alternative Pipeline Routes

Milepost	Dominant Land Use(s) within 500 feet of Pipeline	Potential Roadway/Railway Crossings	Estimated Construction Time (days)
Center Road Pipeline Route			
0-1	Energy facility/agricultural	McWane Boulevard	8
1-2	Agricultural/rural residential	*East Hueneme Road	8 – 30
2-3	Agricultural/rural residential	*Arnold Road; *Olds Road; *Casper Road	8 – 30
3-4	Agricultural/rural residential	*East Hueneme Road	8 – 30
4-5	Agricultural/rural residential	Pidduck Road; SR 1 (Pacific Coast Highway) including on/off ramps; *Nauman Road; Etting Road; *Hailes Road	40
5-6	Agricultural/rural residential	*Hailes Road; East Pleasant Valley Road	8 – 30

Table 4.17-6 Anticipated Construction Periods Along 1-Mile Segments of the Onshore Proposed and Alternative Pipeline Routes

Milepost	Dominant Land Use(s) within 500 feet of Pipeline	Potential Roadway/Railway Crossings	Estimated Construction Time (days)
6-7	Agricultural/rural residential	None	8 – 30
7-8	Agricultural/industrial/commercial	SR 34 (East 5 th Street); Southern Pacific Railroad; Sturgis Road	40
8-9	Agricultural/industrial/commercial	Camino Del Sol; *Galaxy Place; *Jupiter Court; *Lunar Court	30
9-10	Agricultural/rural residential	*Del Norte Boulevard; *Camino Avenue; *Trabajo Drive; U.S. 101 (Ventura Freeway)	40
10-11	Agricultural	Central Avenue; *Beardsley Road	30
11-12	Agricultural/rural residential	*Beardsley Road	8 – 30
12-13	Agricultural/rural residential	*Santa Clara Avenue; *Wright Road; *SR 118 (Los Angeles Avenue)	8 – 30
13-14	Agricultural/rural residential/recreational	* SR 118 (Los Angeles Avenue)	8 – 30
14-14.7	Agricultural/recreational	None	6
Center Road Pipeline Alternative 1 Route			
0-1	Energy facility/agricultural	McWane Boulevard	8
1-2	Agricultural/transmission line/mobile home park	East Hueneme Road; *East Pleasant Valley Road	30
2-3	Commercial/medium density residential/agricultural/mobile home park	South Rose Avenue; Syracuse Drive; *Beaumont Avenue; *Olds Road; East Bard Road; Etting Road	30
3-4	Low to medium density residential/agricultural/rural residential	*Packard Street; *Butler Road; SR 1 (Pacific Coast Highway); *East Pleasant Valley Road; *South Rice Avenue; *Channel Islands Boulevard	10 – 30
4-5	Agricultural/rural residential	*East Wooley Road	8 – 30
5-6	Agricultural/rural residential/industrial/commercial	SR 34 (East 5 th Street); Southern Pacific Railroad; *Eastman Avenue; Sturgis Road; *Celcius Avenue	40
6-7	Industrial/commercial/agricultural	Camino Del Sol; *Latigo Avenue; *Rice Avenue; *East Gonzalez Road	30
7-8	Industrial/commercial/medium density residential	Solar Drive; Lombard Street/Outlet Center Drive; Williams Drive; *North Rose Avenue	30
8-9	Commercial/low density residential	*Lockwood Street; U.S. 101 (Ventura Freeway) including on/off ramps; *Via Del Norte; *Auto Center Drive; *Stroube Street; East Collins Street; *Orange Drive *Walnut Drive; *Corsicana Drive	40
9-10	Agricultural/low density residential	*Simon Way	8 – 30

Table 4.17-6 Anticipated Construction Periods Along 1-Mile Segments of the Onshore Proposed and Alternative Pipeline Routes

Milepost	Dominant Land Use(s) within 500 feet of Pipeline	Potential Roadway/Railway Crossings	Estimated Construction Time (days)
10-11	Agricultural/rural residential	Central Avenue	30
11-12	Agricultural/rural residential	*SR 118 (Los Angeles Avenue)	8 – 30
12-13	Agricultural/rural residential	*Clubhouse Drive	8 – 30
13-14	Agricultural/rural residential	*Santa Clara Avenue; *SR 118 (Los Angeles Avenue)	8 – 30
14-15	Agricultural	*Mesa School Road; *SR 118 (Los Angeles Avenue); *La Vista Avenue	8 – 30
Center Road Pipeline Alternative 2 Route			
0-1	Energy facility/agricultural	McWane Boulevard	8
1-2	Agricultural/rural residential	*East Hueneme Road	8 – 30
2-3	Agricultural/rural residential	*Arnold Road; *Olds Road; *Casper Road	8 – 30
3-4	Agricultural/rural residential	*East Hueneme Road	8 – 30
4-5	Agricultural/rural residential	Pidduck Road; SR 1 (Pacific Coast Highway) including on/off ramps; *Nauman Road; Etting Road; *Hailes Road	40
5-6	Agricultural/rural residential	*Hailes Road; *East Pleasant Valley Road.; *Laguna Road	8 – 30
6-7	Agricultural/rural residential	*East Pleasant Valley Road; *Wolff Road	8 – 30
7-8	Agricultural/rural residential	SR 34 (East 5 th Street); Southern Pacific Railroad; Sturgis Road	40
8-9	Agricultural/rural residential	None	30
9-10	Agricultural/rural residential	Springville Road; U.S. 101 (Ventura Freeway); *Central Avenue; Beardsley Road	40
10-11	Agricultural/rural residential	*Beardsley Road	8 – 30
11-12	Agricultural/rural residential	*Santa Clara Avenue; *Wright Road	8 – 30
12-13	Agricultural/rural residential	*SR 118 (Los Angeles Avenue); *Mesa School Road	8 – 30
13-13.6	Agricultural	*SR 118 (Los Angeles Avenue); *La Vista Avenue	5 – 30
Center Road Pipeline Alternative 3 Route			
0-1	Energy facility/agricultural	McWane Boulevard	8
1-2	Agricultural/rural residential	*East Hueneme Road	8 – 30
2-3	Agricultural/rural residential	*Arnold Road; *Olds Road; *Casper Road	8 – 30
3-4	Agricultural/rural residential	*East Hueneme Road	8 – 30

Table 4.17-6 Anticipated Construction Periods Along 1-Mile Segments of the Onshore Proposed and Alternative Pipeline Routes

Milepost	Dominant Land Use(s) within 500 feet of Pipeline	Potential Roadway/Railway Crossings	Estimated Construction Time (days)
4-5	Agricultural/rural residential	Pidduck Road; SR 1 (Pacific Coast Highway) including on/off ramps; *Nauman Road; Etting Road; *Hailes Road	40
5-6	Agricultural/rural residential	*Hailes Road; East Pleasant Valley Road	8 – 30
6-7	Agricultural/rural residential	None	8 – 30
7-8	Agricultural/industrial/commercial	SR 34 (East 5 th Street); Southern Pacific Railroad; Sturgis Road	40
8-9	Agricultural/industrial/commercial	Camino Del Sol; *Galaxy Place; *Jupiter Court; *Lunar Court	30
9-10	Agricultural/rural residential	*Del Norte Boulevard; *Camino Avenue; *Trabajo Drive; U.S. 101 (Ventura Freeway)	40
10-11	Agricultural	Central Avenue; *Beardsley Road	30
11-12	Agricultural/rural residential	*Santa Clara Avenue	8 – 30
12-13	Agricultural/rural residential	*Wright Road; *SR 118 (Los Angeles Avenue)	8 – 30
13-14	Agricultural/rural residential/recreational	*Mesa School Road; *SR 118 (Los Angeles Avenue); *La Vista Avenue	8 – 30
14-14.3	Agricultural/recreational	*La Vista Ave.	6 – 30
Pipeline 225 Loop Preferred Route			
0-1	Industrial/utility corridor/low to medium density residential	Fino Mountain Way; *Karie Lane	8
1-2	Open space/low to medium density residential	Barnhill Road; Rocket Road; Rolling Ridge Drive; Claiborne Lane	10 – 30
2-3	Medium density residential/industrial/commercial	*Circle J Ranch; *Sheffield Lane.; *Great Lakes Court; Oak Ridge Drive; *Rolling Greens Way; *Metrolink Railroad; *SR 126 (San Fernando Road); *Via Princessa	10 – 40
3-4	Medium density residential	*Drayton Street; *Metrolink Railroad; *Bouquet Canyon Road; *SR 126 (San Fernando Road); *SR 126 (Magic Mountain Parkway)	10 – 40
4-5	Commercial	Valencia Boulevard; *Citrus Street; Auto Center Drive	13 – 30
5-6	Open space/medium density residential	*SR 126 (Magic Mountain Parkway); *McBean Parkway; *Creekside Road; *Bridgeport Lane; *Avenue Scott; *Sea Cove Lane	40

Table 4.17-6 Anticipated Construction Periods Along 1-Mile Segments of the Onshore Proposed and Alternative Pipeline Routes

Milepost	Dominant Land Use(s) within 500 feet of Pipeline	Potential Roadway/Railway Crossings	Estimated Construction Time (days)
6-7	Industrial/commercial	Avenue Rockefeller; Avenue Tibbets; Anza Drive; *Avenue Kearney; *Avenue Stanford; *Avenue Scott; *Avenue Hopkins; *Freemont Court	13 – 30
7-7.1	Industrial/utility corridor/low to medium density residential	*Avenue Stanford; Rye Canyon Road; Avenue Hall	7 – 30
Pipeline 225 Loop Alternative Route			
0-1	Industrial/utility corridor/low to medium density residential	Fino Mt. Way; *Karie Lane	8
1-2	Open space/low to medium density residential	Barnhill Road; Rocket Road; Rolling Ridge Drive; Claiborne Lane	10 – 30
2-3	Medium density residential/ industrial/commercial	*Circle J Ranch Road; *Sheffield Lane; *Great Lakes Court; Oak Ridge Drive; *Rolling Greens Way; *Metrolink Railroad; *SR 126 (San Fernando Road); *Via Princessa	10 – 40
3-4	Medium density residential	*Drayton Street; *Metrolink Railroad; *Bouquet Canyon Road; *SR 126 (San Fernando Road); *SR 126 (Magic Mountain Parkway)	10 – 40
4-5	Commercial	Valencia Boulevard; *Citrus Street; Auto Center Drive	13 – 30
5-6	Open space/medium density residential	McBean Parkway; *SR 126 (Magic Mountain Parkway)	40
6-7	Industrial/commercial	Avenue Stanford; Rye Canyon Road	13 – 30
7-7.22	Industrial/utility corridor/low to medium density residential	Avenue Hall	7 – 30

Notes:

Estimated construction time does not include water body crossings.

Roads identified with an asterisk may or may not be crossed depending on the final design route of the pipeline.

Estimated construction time is based on the following construction rates:

Trenching in open areas: 500 feet per day (10.5 days per mile)

Trenching in congested areas: 300 feet per day (17.5 days per mile)

Trenching across roadways: 30 days

Boring beneath roadways: 40 days

- 1 All vehicles would be regulation sized except for specific pipe-laying equipment, which
- 2 may haul oversized loads. The vehicles would include 1-ton flatbed trucks, lowboys,
- 3 pipe dollies, and dump trucks. Local hauling permits would be obtained from
- 4 appropriate agencies prior to construction. No roads would require improvement to
- 5 allow equipment to access the Project.
- 6 Onshore pipeline construction would occur six days per week (Monday through
- 7 Saturday), from 7 a.m. to 7 p.m., although the City of Santa Clarita Planning Office has

indicated that the westernmost portion of the proposed Line 225 Loop may need to be constructed at night in industrial zones.

The proposed Center Road Pipeline and Line 225 Loop would require one or two construction spreads to complete the pipeline improvements. Assuming that there are two spreads for each pipeline, two crews would start at either end and work toward each other. The construction-related traffic impact analysis is based on 120 roundtrips by personal vehicles to each pipeline per day. It is estimated that 400 to 450 truck trips would be required to deliver materials and equipment for the Project. This presents the worst-case scenario for construction-related traffic impacts based on the anticipated crew size. Impacts and mitigation measures associated with transportation are discussed below. Applicant-proposed measures (AM) and agency-recommended mitigation measures (MM) are defined in Section 4.1.5, "Applicant Measures and Mitigation Measures."

Impact TRANS-1: Temporary Increase in Traffic

During construction, the addition of the construction-related workforce and material deliveries to and from staging areas could temporarily increase traffic during peak construction periods (CEQA Class II; NEPA moderate adverse, short-term).

Staging Areas

There would be two to three temporary staging areas for the Center Road Pipeline and one or two temporary staging areas for the Line 225 Pipeline Loop. The staging areas would be 2 to 8 acres (0.81 to 3.23 ha) depending on availability and landowner approval. They would hold equipment, excess spoils, and contractor offices and materials, and would serve as parking areas for construction workers. The locations of these staging areas have not yet been selected, but they would likely be in commercial/industrial areas, as close as practical to the construction route, and sited to take advantage of existing disturbed areas.

Reliant Energy Ormond Beach Generating Station Shore Crossing

The HDB construction would last about 54 days at the Reliant Energy Ormond Beach Generating Station shore crossing site. Due to the limited number of material deliveries and construction workers, increases in traffic would be less than significant.

Center Road Pipeline

The Applicant anticipates that the entire work crew for the pipeline construction would be 100 to 120 workers during peak construction. Construction would start concurrently at both ends of the route and proceed toward the center. Assuming that two staging areas were used and each worker would drive to work in a separate vehicle, the worst-case scenario would have 60 personal vehicles traveling to and from the staging areas each day. With three staging areas, the traffic would be even more dispersed. The

workers would park their vehicles at the staging area and be transported to the work area by truck.

All major intersections along the Center Road Pipeline route operate at LOS A and B. The addition of 60 crew vehicles at intersections would not result in a significant transportation impact.

Line 225 Pipeline Loop

The size of the work crew, construction methodology, and worst case scenario would be the same as that described for the Center Road Pipeline above.

The City of Santa Clarita has no established threshold criteria for temporary impacts on traffic and transportation. However, given the number of added vehicle trips in relation to current average daily traffic, impacts on traffic and transportation as a result of construction-related deliveries and work-related trips along the Line 225 Pipeline Loop would be less than the significance criteria.

Mitigation Measures for Impact TRANS-1: Temporary Increase in Traffic

MM TRANS-1a. Traffic Control Plans. Two traffic control plans shall be prepared by a registered professional engineer in accordance with the Work Area Protection and Traffic Control Manual (1999): one for the Center Road Pipeline route and one for Line 225 Pipeline Loop route. Because CalTrans has its own requirements, where work occurs within a CalTrans ROW, the traffic control plan shall be developed and implemented in accordance with the CalTrans Traffic Manual. The plans shall detail the location, schedule, signage, and safety procedures for lane and road closures based on final pipeline engineering design. The plans shall be submitted to and approved by CalTrans and applicable local agencies at least 60 days prior to construction and shall include the following requirements:

- Maintain two-way traffic at all times, and use flaggers as necessary;
- Keep signage up to date and in good condition at all times;
- Provide safety measures to separate motorists from construction workers;
- Ensure access for emergency vehicles at all times;
- Ensure access to private residences at all times;
- Open lanes as soon as possible to restore normal traffic patterns;
- Provide temporary access to businesses along the pipeline route during construction;

- Cross highways and railroads by conventional HDD to minimize disruption to traffic;
- Notify the public during construction, using methods such as large electronic monitoring signs, notification to impacted residents, appropriate detour signs, and notifications to schools and emergency providers;
- Provide an information hotline to be manned during business hours;
- Provide a designated traffic control coordinator to ensure compliance with the Traffic Control Plan;
- Reopen bicycle lanes as soon as possible to minimize disruption to bicycle traffic; and
- After construction, restore the roads to their pre-construction condition.

For areas outside of the CalTrans ROW, the Applicant or its designated representative would obtain encroachment permits from the appropriate jurisdiction.

MM TRANS-1b. Notification, Schedule Shifts, Carpooling. During construction, the Applicant or its designated representative shall implement best management practices approved by CalTrans and/or the affected local government, such as notification, schedule shifts, and carpooling to minimize increases in traffic. The Applicant shall incorporate the following measures to minimize the impact of the short-term increase in traffic from the construction workforce and truck deliveries:

- Coordinate with local jurisdictions to notify residents and transit operators of alternate traffic routes;
- Schedule shifts and material deliveries to avoid peak traffic congestion hours; and
- Provide incentives to promote carpooling among the construction workforce.

These mitigation measures would reduce the increase in traffic volume to less than 5 percent; therefore, this impact would be reduced below its significance criteria. Implementation of MM TRANS-1a would ensure continued flow of non-Project related traffic around the area under construction. Implementation of MM TRANS-1b would keep the number of construction related trips to a minimum.

Impact TRANS-2: Temporary Traffic Lane Closures

The Project could restrict one or more lanes of major roads, disrupting local traffic flow during peak hours (CEQA Class II; NEPA moderate adverse, short-term).

Pipeline construction would take place six days per week (Monday through Saturday), including during morning and evening peak hours (except at the intersection of SR 118 and Santa Clara Avenue). Construction in the roadway, shoulder, or ROW could reduce the road capacity and create or increase congestion. No arterial roadways would be closed.

The rate and duration of construction would vary along each route, depending on a number of factors, such as the presence of substructures and buried utilities, schedule constraints imposed by local jurisdictions, land use, and road and waterway crossing methodology employed. Typical SoCalGas large-diameter pipeline construction rates, assuming 12-hour shifts, are as follows:

- City streets: 300 to 500 feet (91 to 152 m) per day, or 11 to 18 days per mile;
- Agricultural areas: 500 to 700 feet (152 to 213 m) per day, or 8 to 11 days per mile;
- Road crossing via trenching: 30 days; and
- Road/railroad crossing via HDD: 40 days.

The anticipated period of disruption along each 1-mile segment of the proposed and alternative routes is presented above in Table 4.17-6. Open trenching activities to cross roads, for example, may affect traffic lanes for one to two weeks.

Pipeline construction ROWs would be approximately 80 feet (24.4 m) wide, except at the northern end of the proposed Center Road Pipeline, which would be approximately 100 feet (30.5 m) wide.

In-street and/or shoulder construction during installation of the onshore pipelines may require temporary lane closures. At a minimum, one lane would remain open to two-way traffic during construction.

The local population may avoid roads with lane closures and use alternative roads, which could shift traffic patterns and cause secondary increases in daily traffic loads. The extent of impacts on a roadway would vary depending on the roadway arrangement. Lane closures would be conducted in accordance with an approved traffic control plan (MM TRANS-1a) and local encroachment and/or traffic detour permits issued by the affected jurisdiction. The traffic control plan and encroachment permit would define lane restrictions based on traffic flows, intersections, parking/no parking lanes, left turn lanes, and possible detours.

The effects of construction would result in increased congestion, but would also be of a relatively short duration.

Mitigation Measure for Impact TRANS-2: Temporary Traffic Lane Closures

MM TRANS-1a. Traffic Control Plans. This mitigation measure applies here. See Impact TRANS-1.

With implementation of the above measure, this impact would be reduced below its significance criteria.

Preparation and implementation of approved traffic control plans would ease congestion by, for example, maintaining two-way traffic, ensuring continued flow of traffic around the area under construction, and allowing continued access to residences, businesses, etc.

Impact TRANS-3: Temporarily Reduced On-Street Parking Access

Construction could temporarily restrict residential on-street parking access (CEQA Class III; NEPA minor adverse, short-term).

Temporary lane closures could restrict residential on-street parking access for short periods of time. On-street parking could also be restricted due to the influx of construction-related vehicles parking on public roads. The Ormond Beach shore crossing and HDB construction site would require parking and staging for construction workers and equipment near the HDB termination point at the end of Edison Drive. To avoid impacts, parking for the construction-related workforce would be entirely accommodated within staging areas. Staging area locations have not yet been determined but would be sited so that access to the staging areas would not cause traffic impacts, e.g., they would be in existing disturbed areas such as commercial/industrial sites, and as close as practical to the construction route but sufficiently away from roads so as not to impact traffic or parking. The locations would be selected by the construction contractor, and all applicable permits and easements would be acquired prior to construction. No additional parking would be required. These impacts are less than significant and therefore no mitigation measures are required.

Impact TRANS-4. Temporary Closure of Bike Routes

Construction could result in temporary closure and/or restricted access to bike paths crossed by the onshore pipelines, which could adversely affect the safety of bicyclists (CEQA Class II; NEPA moderate adverse, short-term).

The Center Road Pipeline would not cross or follow any designated bike trails.

The Line 225 Pipeline Loop route would, however, cross a bike path near a designated multi-use trailhead, South Fork Trailhead, on the west bank of the South Fork Santa Clara River, along SR 126 (San Fernando Road and Magic Mountain Parkway) (MP

3.5). This bike path is designated for the exclusive use of bicycles and pedestrians with minimal cross-flow traffic. It is expected that construction activities would occur close to the bike path for about 10 to 14 days; therefore, temporary closure or limited access to parts of this bike path may be required.

Mitigation Measures for Impact TRANS-4: Temporary Closure of Bike Routes

MM TRANS-4a. Bike Detour Lanes. Where bike paths are closed, the Applicant or its designated representative shall provide an alternative bike route, provide signs and notice of the pending closure at least 30 days prior to commencement of work at the affected location, and ensure that the route remains posted until the access is restored to its pre-construction condition.

MM TRANS-4b. Repair Damage to Bike Paths. The Applicant or its designated representative shall restore any bike paths damaged as a result of Project construction to their pre-construction condition within 21 days of completion of the bike route-based portion of each alignment.

MM TRANS-1a. Traffic Control Plans apply here. See Impact TRANS-1, above.

Implementation of the above mitigation measures would reduce this impact below its significance criteria. With appropriate restoration, signage, and timely dissemination of information about the trail closures, significant impacts on bicyclists would be lessened and would enable ongoing use of the bike path during construction.

Impact TRANS-5: Damage to Roads During Construction

Roads crossed or paralleled by the onshore pipelines, as well as those used to access the Project, could be temporarily damaged by increased traffic and heavy equipment (CEQA Class II; NEPA minor or moderate adverse, short-term).

Given increased traffic volumes and the weight of construction equipment, there is the potential for roads to become damaged during construction.

Mitigation Measures for Impact TRANS-5: Damage to Roads During Construction

MM TRANS-5a. Repair Damage to Roads. The Applicant or its designated representative shall repair to pre-construction conditions any damage to roads that occurs as a result of the Project within 21 days of completion of the road-based portion of each alignment or in accordance with local road encroachment permit conditions determined prior to construction, whichever is less. In addition, where a roadway has been rehabilitated within the past five years, the Applicant or its designated representative shall provide a full width overlay after trenching is completed. The Applicant or its designated representative shall negotiate with the appropriate

jurisdiction regarding videotaping of existing roadways prior to construction and mitigation fees to be deposited into a trust fund.

The effects would be temporary and of a relatively short duration and implementation of the above mitigation measures would reduce this impact to below its significance criteria. Any damage to roads would be repaired as soon as feasible following construction within the roadways and in no case would the road be in disrepair for more than 21 days.

Table 4.17-7 summarizes the transportation impacts and mitigation measures discussed above.

Table 4.17-7 Summary of Transportation Impacts and Mitigation Measures

<i>Impact</i>	<i>Mitigation Measure(s) Summary</i>
TRANS-1: Temporary Increase in Traffic During construction, the addition of the construction-related workforce and material deliveries to and from staging areas could temporarily increase traffic during peak construction periods (CEQA Class II; NEPA moderate adverse, short-term).	MM TRANS-1a. Traffic Control Plans. Two traffic control plans shall be prepared by a registered professional engineer in accordance with the Work Area Protection and Traffic Control Manual (1999): one for the Center Road Pipeline and one for Line 225 Pipeline Loop. MM TRANS-1b. Notification, Schedule Shifts, Carpooling. During construction, the Applicant or its designated representative shall implement best management practices approved by CalTrans and/or the affected local government, such as notification, schedule shifts, and carpooling, to minimize increases in traffic.
TRANS-2: Temporary Traffic Lane Closures The Project could restrict one or more lanes of major roads, disrupting local traffic flow during peak hours (CEQA Class II; NEPA moderate adverse, short-term).	MM TRANS-1a. Traffic Control Plans (see Impact TRANS-1).
TRANS-3: Temporarily Reduced On-Street Parking Access Construction could temporarily restrict residential on-street parking access (CEQA Class III; NEPA minor adverse, short-term).	None.
TRANS-4: Temporary Closure of Bike Routes Construction could result in temporary closure and/or restricted access to bike paths crossed by the onshore pipelines, which could adversely affect the safety of bicyclists (CEQA Class II; NEPA moderate adverse, short-term).	MM TRANS-4a. Bike Detour Lanes. Where bike paths are closed, the Applicant or its designated representative shall provide an alternative bike route, provide signs and notice of the pending closure at least 30 days prior to commencement of work at the affected location, and ensure that the route remains posted until the access is restored to its pre-construction condition. MM TRANS-4b. Repair Damage to Bike Paths. The Applicant or its designated representative shall restore any bike paths damaged as a result of Project construction to their pre-construction condition within 21 days of completion of the bike route-based portion of each alignment. MM TRANS-1a. Traffic Control Plans (see

Table 4.17-7 Summary of Transportation Impacts and Mitigation Measures

<i>Impact</i>	<i>Mitigation Measure(s) Summary</i>
	Impact TRANS-1).
TRANS-5: Damage to Roads During Construction Roads crossed or paralleled by the onshore pipelines, as well as those used to access the Project, could be temporarily damaged by increased traffic and heavy equipment (CEQA Class II; NEPA minor or moderate adverse, short-term).	MM TRANS-5a. Repair Damage to Roads. The Applicant or its designated representative shall repair to pre-construction conditions any damage to roads that occurs as a result of the Project within 21 days of completion of the road-based portion of each alignment or in accordance with local road encroachment permit conditions determined prior to construction, whichever is less. In addition, where a roadway has been rehabilitated within the past five years, the Applicant or its designated representative shall provide a full width overlay after trenching is completed. The Applicant or its designated representative shall negotiate with the appropriate jurisdiction regarding videotaping of existing roadways prior to construction and mitigation fees to be deposited into a trust fund.

4.17.5 Alternatives

Transportation impacts would be essentially the same under the alternatives as with the proposed Project. Differences in impacts between the alternatives are discussed below under each alternative.

4.17.5.1 No Action Alternative

As explained in greater detail in Section 3.4.1, under the No Action Alternative, MARAD would deny the license for the Cabrillo Port Project, the Governor of California would disapprove the Project under the provisions of the DWPA, or the CSLC would deny the application for the proposed lease of State tide and submerged lands for a pipeline right-of-way. Any of these actions or disapproval by any other permitting agency could result in the Project not proceeding. The No Action Alternative means that the Project would not go forward and the FSRU, associated subsea pipelines, and onshore pipelines and related facilities would not be installed. Accordingly, none of the potential impacts on transportation identified for the construction and operation of the proposed Project would occur.

Specifically, potential impacts that would not occur if the No Action Alternative is implemented include the following:

- Temporary increase in traffic during construction periods due to the addition of construction-related workforce and material deliveries to and from staging areas;
- Disruption of local traffic flow during peak hours due to the restriction of one or more lanes of major roads;
- Closure and/or restriction of bike paths during pipeline construction;
- Temporarily reduced access to on-street parking; and

- Temporary damage to roads during onshore pipeline construction due to increased traffic and heavy equipment use.

Since the proposed Project is privately funded, it is unknown whether the Applicant would proceed with another energy project in California; however, should the No Action Alternative be selected, the energy needs identified in Section 1.2, "Project Purpose, Need and Objectives," would likely be addressed through other means, such as through other LNG or natural gas-related pipeline projects. Such proposed projects may result in potential impacts on transportation similar in nature and magnitude to the proposed Project as well as impacts particular to the respective configurations and operations of each project; however, such impacts cannot be predicted with any certainty at this time.

4.17.5.2 Alternative Deepwater Port Location – Santa Barbara Channel/Mandalay Shore Crossing/Gonzales Road Pipeline

Impacts on traffic and transportation for the Santa Barbara Channel/Mandalay Shore Crossing/Gonzales Road Pipeline route would be greater than those for the proposed Center Road Pipeline because it would be near access to McGrath Lake, Mandalay Beach, and McGrath State Beach; pass through a larger residential area; pass by more schools, including Oxnard High School on Gonzalez Road; and would affect use of bicycle paths.

All of the mitigation measures identified for the proposed routes are applicable to this alternative, as are the conclusions.

4.17.5.3 Alternative Onshore Pipeline Routes

Alternative pipeline routes and major intersections are illustrated in Figures 4.17-1 and 4.17-2 above.

Center Road Pipeline Alternative 1

Traffic data for roads that cross or share a ROW with Alternative 1 are identified in Table 4.17-8. Compared to the proposed Center Road Pipeline route, Alternative 1 would pass through a larger residential area and pass by several schools, a college, and a medical center. Alternative 1 would also affect a Class 3 bike route.

All of the mitigation measures identified for the proposed route would be applicable to this alternative, as are the conclusions.

Center Road Pipeline Alternative 2

Traffic data for roads that cross or share a ROW with Alternative 2 are shown in Table 4.17-9. Compared to the proposed Center Road Pipeline Route, Alternative 2 would pass entirely through agricultural land. Impact classes would be the same as for the proposed Project.

Table 4.17-8 Traffic Data for Roadways that Cross or Parallel Center Road Pipeline Alternative 1

Mileposts	Roadway/Highway	Description	Location	2003 AADT	2005 AADT	Peak Hour^a	AM Peak^b	PM Peak^b
1.91 to 3.4	Pleasant Valley Road	Four-lane arterial	NA	-	-	-	-	-
3.3	SR 1 (Pacific Coast Highway)	Four-lane arterial	West of Pleasant Valley Road/Rice Ave.	12,000	12,900	1,600	-	-
			East of Pleasant Valley Road/Rice Ave.	16,400	18,600	2,350	-	-
5.5	SR 34 (East 5 th St.)	Four-lane arterial	West of Rice Avenue	11,100	11,900	1,400	-	-
			East of Rice Avenue	15,000	13,800	1,700	-	-
3.41 to 7.0	Rice Avenue	Four-lane arterial	North of Pleasant Valley Rd	19,500	23,700	-	2,030	2,240
			South of East Fifth Street	30,200	31,800	-	2,710	2,970
			North of Gonzales Road	-	-	-	1,054	1,587
			South of Gonzales Road	-	-	-	1,884	1,770
8.4	U.S. 101 (Ventura Freeway)	Four-lane freeway	West of Rose Avenue	129,000	133,000	10,200	-	-
			East of Rose Avenue	137,000	139,000	10,700	-	-
7.01 to 7.9	Gonzales Road	Four-lane arterial	East of Rose Avenue	-	-	-	-	-
7.91 to 11.9	Rose Ave	Four-lane arterial	South of SR 118 (Los Angeles Avenue)	8,700	8,500-	-	670	680
			South of Central Avenue	11,800	11,700	-	980	1,030
			North of Collins Street	16,100	18,100	-	1,290	2,030
11.91 to 14.3	SR 118 (Los Angeles Avenue)	Four-lane arterial	West of Santa Clara Avenue	21,700	23,800	2,250	-	-
			East of Santa Clara Avenue	14,700	16,000	1,550	-	-
14.31 to 15.0	La Vista Avenue	Two-lane collector	North of SR 118 (Los Angeles Avenue)	700	700	-	110	110

Sources: Ventura County Public Works Agency 2006; CalTrans 2006.

Notes: ADT = average daily traffic; NA = not applicable; - = no data available.

^aPeak-hour data from CalTrans 2006.

^bAM and PM peak data from Ventura County Public Works Agency 2006.

Table 4.17-9 Traffic Data for Roadways that Cross or Parallel Center Road Pipeline Alternative 2

Mileposts	Roadway/Highway	Description	Location	2003 ADT	2005 ADT	Peak Hour ^a	AM Peak ^b	PM Peak ^b
1.31 to 3.8	Port Hueneme Road	Four-lane arterial	East of Nauman Road	13,200	13,200	-	1,120	1,310
3.81 to 4.8	Nauman Road	Four-lane arterial	NA	-	-	-	-	-
4.3	SR 1 (Pacific Coast Highway)	Four-lane arterial	North of Port Hueneme Road	-	12,900	1,550	-	-
			South of Port Hueneme Road	-	13,100	1,600	-	-
4.81 to 4.9	Etting Road	Four-lane arterial	East of SR 1 (Pacific Coast Highway)	1,800	1,900	-	380	240
4.91 to 5.8	Hailes Road	Four-lane arterial	NA	-	-	-	-	-
5.81 to 6.0	East Pleasant Valley Road	Four-lane arterial	South of SR 34	14,500	14,200	-	1,250	1,390
~7 to 8	Wolff Road	Four-lane arterial	NA	-	-	-	-	-
~7.8	SR 34 (East 5 th Street)	Four-lane arterial	West of East Pleasant Valley Road	10,400	13,800-	1,700	-	-
~9.5	U.S. 101 (Ventura Freeway)	Four-lane freeway	West of Central Avenue	143,000	148,000	11,300	-	-
			East of Central Avenue	138,000	142,000	11,300	-	-
~10 to 10.2	Central Avenue	Four-lane arterial	West of U.S. 101 (Ventura Freeway)	12,900	13,500	-	1,540	1,180
			West of Santa Clara Ave	9,400	9,500	-	1,170	950
~10.2 to 10.5	Beardsley Road	Two-lane collector	North of Central Avenue	2,300	2,200	-	170	190
11.5 to 13.2	Santa Clara Avenue	Four-lane arterial	South of SR 118 (Los Angeles Avenue)	11,900	13,500	-	1,130	1,130
13.2 to 14.1	La Vista Avenue	Two-lane collector	North of SR 118 (Los Angeles Avenue)	700	700	-	110	100

Sources: Ventura County Public Works Agency 2006; CalTrans 2006.

Notes: ADT = average daily traffic; - = no data available; NA = not applicable.

^aPeak-hour data (number of vehicles) from CalTrans 2006 (2005 data).

^bAM and PM peak data (number of vehicles) from Ventura County Public Works Agency 2006 (2005 data).

All of the mitigation measures identified for the proposed route would be applicable to this alternative, as are the conclusions.

Center Road Pipeline Alternative 3

Traffic data for roads that cross or share a ROW with Alternative 3 are the same as for the Center Road Pipeline (see Table 4.17-2 above). There is no significant difference between Alternatives 2 and 3; therefore, the impacts would be the same.

All of the mitigation measures identified for the proposed route would be applicable to this alternative, as are the conclusions.

Line 225 Pipeline Loop Alternative

Traffic data for roads that would cross or share a ROW with the Line 225 Pipeline Loop Alternative are described in Table 4.17-10. There is no significant difference between this alternative and the proposed route; therefore, the impacts would be the same. Instead of using the bridge to cross the Santa Clara River, HDD may be employed. This methodology requires the use of drilling mud as described for HDB in Section 2.6.1 “Shore Crossing via HDB” in Chapter 2, “Description of the Proposed Action.” The HDD crossing would be approximately 2,000 feet (610 m) long and would require two large staging areas, one on each side of the river. The entry point staging area would measure approximately 200 feet (61 m) by 400 feet (122 m), while the exit point staging area would measure approximately 150 feet (45.7 m) by 2,000 feet (610 m).

The procedure would be to drill a pilot hole, which would then be successively reamed in 5 to 6 passes to achieve a 36-inch (0.91 m) to 42-inch (1.07 m) diameter borehole. The prefabricated 2,000-foot (610 m) long, 30-inch (0.76 m) diameter pipeline would then be pulled back through the borehole in one continuous motion. Installation of a 30-inch (0.76 m) pipeline beneath the Santa Clara River using HDD would take approximately three months, and drilling would be conducted 24 hours per day, seven days per week.

All of the mitigation measures identified for the proposed Line 225 Pipeline Loop would be applicable to this alternative, as are the conclusions.

4.17.5.4 Alternative Shore Crossings/Pipeline Routes

Point Mugu Shore Crossing/Casper Road Pipeline

Impacts on traffic and transportation for the Point Mugu Shore Crossing/Casper Road Pipeline would be of the same type and magnitude as those identified for the Center Road Pipeline (see Table 4.17-2 above); therefore, the same mitigation measures and conclusions would apply.

Table 4.17-10 Traffic Data for Roadways that Cross or Parallel the Line 225 Pipeline Loop Alternative Route

Mileposts	Road	Description	Location	Most Recent ADT [# of vehicles] and (year of data)
1.8 to 2.3	Via Princessa	Two-lane collector	West of Oak Ridge Drive	2,900 (2000)
			East of Oak Ridge Drive	1,950 (2000)
2.31 to 2.6	Oak Ridge Drive	Two-lane collector	East of SR 126 (San Fernando Road)	7,450 (2000)
2.61 to 3.4	Bouquet Canyon Road	Four-lane arterial	North of SR 126 (Magic Mountain Parkway)	40,650 (2004)
			South of SR 126 (Magic Mountain Parkway)	41,483 (2003)
3.41 to 5.6	SR 126 (Magic Mountain Parkway)	Four- to six-lane arterial	West of Valencia Boulevard	15,500 (2004)
			East of Valencia Boulevard	15,500 (2004)
			West of McBean Parkway	27,000 (2000)
			East of McBean Parkway	28,650 (2000)
6.8	Avenue Stanford	Four-lane arterial	South of Rye Canyon Road	64,600 (2004)
7.0	Rye Canyon Road	Four-lane arterial	West of Newhall Ranch Road	39,300 (2000)
			West of Avenue Scott	15,000 (2004)

Notes: ADT = average daily traffic; - = no data available.

Data (number of vehicles) provided by the City of Santa Clarita Traffic Engineering Division 2006.

Arnold Road Shore Crossing/Arnold Road Pipeline

Impacts on traffic and transportation for the Arnold Road Shore Crossing/Arnold Road Pipeline would be of the same type and magnitude as those identified for the Center Road Pipeline (see Table 4.17-2 above); therefore, the same mitigation measures and conclusions would apply.

4.17.6 References

California Department of Transportation (CalTrans). 2006. Traffic and Vehicle Data Systems Unit. Accessed September 7. Available at: <http://traffic-counts.dot.ca.gov>.

City of Oxnard. 2000. Land Use Plan. Oxnard, CA.

_____. 2004. Personal communication from Jason Sumonte, Traffic Engineer, to Ecology and Environment, Inc. regarding significance criteria on July 27, 2004.

City of Santa Clarita. 2004. Personal communication from Ian Pari to Ecology and Environment, Inc. regarding significance criteria on July 20, 2004.

City of Santa Clarita Traffic Engineering Division. 2006. E-mail from Pooja Singh to Ralph Lambert of Ecology & Environment, Inc. with updated traffic counts. September 7.

Denton, David, Ventura County Public Works Agency. 2006. Fax regarding improvements to the intersection of Santa Clara Avenue and SR 118. October 26.

Southern California Regional Rail Authority. 2003. Antelope Valley Line information. Available from: http://www.metroinktrains.com/lines/line_92_antelope_valley/.

Ventura County Planning Division. 2004. Focused General Plan Update. Available from: http://www.ventura.org/planning/programs_services/gen_plan_update/focus_gen_plan_update.htm.

Ventura County Public Works Agency. 2000. Ventura County Initial Study Assessment Guidelines – Public Roads and Highways Level of Service. Prepared by County of Ventura Public Works Agency, Transportation Department. Ventura County, California.

_____. 2004. Personal communication from Nazir Lalani to Ecology and Environment, Inc. regarding significance criteria on July 27, 2004.

_____. 2006. Ventura County Roads Traffic Volume Table and Levels of Service, Major Intersections. Accessed September 7.

<http://publicworks.countyofventura.org/transportation/traffic.htm#volume>.